

REMARKS

In the Office Action mailed 11/4/2005, Claims 1-9 were rejected as being obvious over the prior art under 35 U.S.C. § 103. Claims 10-14 were rejected for obviousness-type double patenting. Claims 1-9 and 10 were objected to for informalities an/or as being indefinite under 35 U.S.C. §112.

In response, Applicant has amended claims 1, 2, 3, 9 and 10 to overcome the Examiner's objection and in view of the prior art.

Applicant has further filed a Terminal Disclaimer with the appropriate fee in order to overcome the double-patenting rejection of Claims 10-14.

Patentability of Claims 1-9, as amended

These claims stand rejected as being obvious under 35 U.S.C. §103(a) over *Liu* in view of *Hobson*, and further over *Dupray* in view of *Hobson*. Applicant respectfully traverses these rejections for the reasons set forth below after a discussion of the teachings of these references.

Liu, U.S. Patent Application Publication 2004/0029558

Liu is a "Method and System for Determining a Location of a Wireless Transmitting Device and Guiding the Search for the Same." The *Liu* method and system "employ a 'Movable Detection Station' and a 'Guiding and Reference Device.'" As is clear from the disclosure of *Liu*, this reference focuses on the difficult problem presented by transmitter localization "in a fictitious urban area," where "blockage of line of sight (LOS) and multipath propagation effects" create impediments. *See Paragraph 41.*

Liu does disclose the use of a variety of “geometric” approaches to transmitter localization, but only within the confines of its recited method for “obtaining the signal properties of the transmitted signals.” See *Claim 1*. Specifically, *Liu* recites the use, alternatively, of one of the group of the following “location estimation” methods: TOA, TDOA, AOA, time and angle of arrival, and time difference and angle of arrival. None of these location estimation methods, nor anywhere within the *Liu* disclosure itself, is a location method or system wherein a “cross-over point” is first generated, where “said cross-over point defined as the intersection of a pair of sequential real-time lines of bearing from said DF set each line of bearing corresponding to a wireless transmission from said transmitter received by said DF set,” whereafter a “future position of said transmitter” is estimated “in reference to said cross-over point.” None of the variety of position estimating methods disclosed by Liu employ a cross-over point, nor do they then use that cross-over point as a starting point to arriving at the next transmitter position estimate. *Liu*, therefore, fails to teach each and every element of Applicant’s claimed invention.

Hodson, U.S. Patent No. 5,045,860

Hodson is a “Method and Arrangement for Probabilistic Determination of a Target Location.” Here, as in *Liu*, none of the disclosed location estimation methods, nor anywhere within the *Hodson* disclosure itself, is a location method or system wherein a “cross-over point” is first generated, where “said cross-over point defined as the intersection of a pair of sequential real-time lines of bearing from said DF set each line of bearing corresponding to a wireless transmission from said transmitter received by said

DF set," whereafter a "future position of said transmitter" is estimated "in reference to said cross-over point." *Hodson*, therefore, fails to teach each and every element of Applicant's claimed invention.

Dupray, U.S. Patent No. 6,249,252

Dupray discloses a System for determining "Wireless Location using Multiple Location Estimators." Like *Liu*, *Dupray* focuses on the problem of multipath and LOS obstructions present in urban areas when attempting to localize wireless transmitters. See *Figure 2*. Furthermore, *Dupray* deals with a fixed detector/communication system (comprised of antennae and satellites) determining the location of a mobile transmitter in communication with the fixed system. In its broadest claim (Claim 1, element (d)), the *Dupray* method utilizes a TOA method for localization of the mobile transmitter. The real-time position estimating benefits of Applicant's claimed invention are supported by ample disclosure within the subject specification, and are not trivial.

Like *Liu*, *Dupray* fails to employ a cross-over point, nor does the *Dupray* system and method then use that cross-over point as a starting point to arriving at the next transmitter position estimate. *Dupray*, like *Liu*, therefore, fails to teach each and every element of Applicant's claimed invention.

Patentability of Independent Claims 1 - 9 (as amended)

As discussed above, neither *Liu*, *Hodson* nor *Dupray* disclose each and every element of Applicant's Claims 1-9 (as amended), since neither discloses the generation of

a cross-over point, nor the determination of future transmitter locations "in reference to said cross-over point."

By combining the elements of various well-known decisions, one can see that a *prima facie* case of anticipation is established only when the Examiner provides:

1. one or more references¹
2. that were available to the inventor²
3. where the reference(s) teach³
4. a suggestion to combine or modify the reference(s)⁴
5. the combination or modification of which would appear to be sufficient to have made the claimed invention obvious to one of ordinary skill in the art.⁵

If the Examiner fails to produce a *prima facie* case of unpatentability, "then without more the applicant is entitled to the grant of the patent."⁶

Since each of Applicant's claimed elements are not taught or enabled by *Liu*, *Hodson* or *Dupray*, the Examiner's *prima facie* case of obviousness fails, and this ground for rejection must now therefore be withdrawn.

¹ *W.L. Gore & Assocs. v. Garlock*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

² See *In re Deminski*, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986).

³ *Akzo N.V. v. U.S. Int'l Trade Comm'n*, 808 F.2d 1471, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986) (citing *In re Brown*, 329 F.2d 1006, 1011, 141 USPQ 245, 249 (CCPA 1964)).

⁴ *In re Lalu*, 747 F.2d 703, 223 USPQ 1257, 1258 (Fed. Cir. 1984).

⁵ *Rockwell Int'l Corp. v. United States*, 147 F.3d 1358, 47 USPQ 2d 1027, 1033 (Fed. Cir. 1998).

⁶ *In re Oetiker*, 977 F.2d 1444, 24 USPQ 2d 1444 (Fed. Cir. 1992).

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully requests that the application be reconsidered, the claims be allowed, and the case passed to issue.

Respectfully submitted,

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